

OK TO ENTER: /C.M./
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Patent Application Serial No. 10/597,454
Attorney Docket No. **MIKI0003**

I. AMENDMENTS TO THE SPECIFICATION:

Kindly amend the Substitute Specification filed on January 14, 2009 as follows:

1. Kindly replace Table 13 on page 69 with the following new Table 13 as follows:

[Table 13]

Copper Alloy		No. Type	Average Grain Diameter (μm)	Machinability				Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Fatigue Strength (N/mm^2)
				Cutting type		Cutting main stress (N)					
				80m/min	160m/min	80m/min	160m/min				
Embodiment											
1	A		85								
2	A		40								
3	A		25	⊙	○			532	245	44	253
4	A		15	⊙	○			535	268	45	258
5	A		25	⊙	○			523	256	44	254
6	A		30	⊙	○						
7	A		55					492	219	42	
8	A		90								
9	A		40					498	236	30	
10	A		25	⊙	○						
11	A		20								
12	A		65								
13	A		80								
14	A		45	○	△	122	133				
15	A		65					485	206	39	
16	A		70								
17	A		30								
18	A		20	⊙	○	115	127				
19	A		20	⊙	○	111	118				
20	A		20	⊙	○	110	118				
21	A		20	⊙	⊙	110	117				
22	A		20	⊙	⊙	109	116				
23	A		20	⊙	⊙	108	114	530	266	43	254

2. Kindly replace Table 14 on page 70 with the following new Table 14 as follows:

[Table 14]

Copper Alloy		Average Grain Diameter (μm)	Machinability				Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Fatigue Strength (N/mm ²)
No.	Type		Cutting type		Cutting main stress (N)					
			80m/min	160m/min	80m/min	160m/min				
24	A	20	◎	◎	106	112				
25	A	20	●	◎	104	109	522	251	38	
26	A	45	○	○	115	124				
27	A	45	◎	○	114	123				
28	A	45	◎	○	111	119				
29	A	45	◎	◎	109	115				
30	A	40	○	○	114	124				
31	A	40	◎	○	110	118				
32	A	35	◎	○	113	122				
33	A	25	◎	◎	111	119				
34	A	15					528	272	40	262
35	A	20	◎	○	116	127	520	260	34	
36	A	20	◎	○	117	129				
37	A	20					443	256	13	
38	A	25	○	△			642	302	30	304
39	A	45								
40	A	30	○	△			554	256	33	
41	A	60								
42	A	20								
43	A	20	◎	○	114	123	525	261	34	252
44	A	20	◎	◎	111	116				
45	A	15								
46	A	15					612	288	32	

Embodiment

3. Kindly replace Table 15 on page 71 with the following new Table 15 as follows:

[Table 15]

Copper Alloy		No. Type	Average Grain Diameter (μm)	Machinability				Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Fatigue strength (N/mm ²)
				Cutting type		Cutting main stress (N)					
				80m/min	160m/min	160m/min	80m/min				
Embodiment	47	B	15	◎	○	115	128	720	640	17	336
	48	B	15	◎	○	116	128	735	655	15	
	49	B	150					698	599	14	
	50	B	25	○	○	119	134	705	613	19	
	51	B	15	◎	◎	110	117	715	632	16	
	52	B	15	◎	○	117	129	730	651	15	
	53	C	35					501	234	30	
	54	C	20					524	262	32	
	55	C	15					534	278	34	
	56	C	25					515	250	33	
	57	C	80					468	203	28	
	58	C	80					546	245	27	
	59	C	15					526	257	32	
	60	C	25					522	252	40	
61	C	25									
62	C	15					521	250	33		
63	C	15									
64	C	20					525	255	32		
65	C	15									
66	C	20									
67	C	15					521	250	31		
68	C	20									
69	C	70									
70	C	20									

4. Kindly replace Table 16 on page 72 with the following new Table 16 as follows:

[Table 16]

Copper Alloy		Average Grain Diameter (μm)	Machinability				Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Fatigue Strength (N/mm ²)
No.	Type		Cutting type		Cutting main stress (N)					
			80m/min	160m/min	80m/min	160m/min				
71	C	30					488	235	34	
72	C	20					528	289	32	
73	C	22					523	285	33	
74	D	30					514	240	34	
75	D	20					516	254	36	
76	D	80					522	235	26	
77	D	15								
78	D	20								
79	E	25					520	256	33	
80	E	25	⊙	⊙	109	116	518	248	28	
81	E	25	⊙	⊙	107	113				
82	E	25								
83	E	30	○	△						
84	E	50								
85	E	30	⊙	○						
86	E	65								
87	E	55								
88	E	20	⊙	○						
89	E	30	⊙	○	116	124	598	276	26	272
90	E	30	⊙	○	117	126				
91	F	50					477	245	27	
92	G	15					536	284	38	

5. Kindly replace Table 17 on page 73 with the following new Table 17 as follows:

[Table 17]

Copper Alloy		No. Type	Average Grain Diameter (μm)	Machinability				Tensile Strength (N/mm^2)	Yield Strength (N/mm^2)	Elongation (%)	Fatigue Strength (N/mm^2)
	Cutting type			Cutting main stress (N)							
				80m/min	160m/min	80m/min	160m/min				
Comparative Example											
201	A1		1500					435	170	36	156
202	A1	⊙	600	△				433	174	34	254
203	A1		220					440	188	32	176
204	A1	⊙	350	△							
205	A1	×	100	×			175	203			
206	A1	□	400	×			130	152			
207	A1	□	600	×			122	142			
208	A1	×	600	×			173	201			
209	A1	×	300	×			179	212			
210	A1		400								
211	A1		1200								
212	A1	△	200	×			135	178			
213	A1	×	250	×			205	226			
214	A1		500								
215	A1	●	1000	⊙			99	110	95	25	
216	A1	⊙	1200	○			110	121	94	21	
217	B1	△	450	△			128	147	558	15	
218	B1	○	350	△			126	142	572	6	
219	C1		300								
220	C1		1000								
221	C1		20								
222	C1		600					418	184	23	
223	C1		500					394	178	25	

6. Kindly replace Table 18 on page 74 with the following new Table 18 as follows:

Table 18

Copper Alloy		Average Grain Diameter (μm)	Machinability				Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Fatigue Strength (N/mm ²)
No.	Type		Cutting type		Cutting main stress (N)					
			80m/min	160m/min	80m/min	160m/min				
224	C1	400					441	194	30	
225	D1	2000					412	166	22	
226	D1	1200					232	80	22	
227	E1	90	x	x						
228	E1	1500					426	170	24	
229	E1	800								
230	E1	200	x	xx						
231	E1	400	△	□			430	174	25	
232	E1	350					438	188	26	
233	E1	350								
234	F1	2500					408	162	25	
235	G1	25	●	●	96	101	387	165	39	
236	G1	35	●	⊗	102	109	398	175	36	

Comparative Example